

WRIA 15 EAST MAP APPENDIX

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Map 1, WRIA 15, KITSAP:
East WRIA 15 Salmonid Distribution



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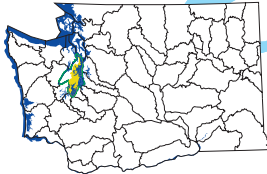
- Salmonid Distribution
- Streams
- Primary Roads
- Secondary Roads
- Light Duty Roads
- Other Roads
- Railroad
- WRIA 15 Boundary
- County Boundary
- East WRIA 15 Boundary
- Mason County
- Kitsap County
- Pierce County
- King County
- Lakes/Major Waterways
- Swamps/Wetlands

West WRIA 15 to be included in the Hood Canal
Limiting Factors Analysis report.

Vashon/Maury Islands to be
included in the WRIA 9
Limiting Factors Analysis
Report.

This map represents composite known or presumed salmonid distribution for streams in East WRIA 15. Salmonid species considered and included in this composite are chinook, chum, coho, steelhead, and cutthroat. Identified salmonid presence in East WRIA 15 streams is the result of professional observations and experience of TAG participants, and other recorded observations. The represented distribution is an under-representation of actual distribution, as there are streams or reaches where no spawner surveys have been conducted. There are also a large number of streams where salmonid presence has been limited by fish passage barriers. Although many barriers have and are being corrected, recolonization upstream of the previous barriers will occur gradually over time.

Map Projection: WA Stateplane South Zone 5626 Datum NAD 1927
Data derived from DNR: Hydrology Resolution Scale 1:24000 Transportation Resolution Scale 1:24000
Map By: Ronald McFarlane, NWIFC, October 2000



East WRIA 15 Location



Map 2, WRIA 15, KITSAP:
East WRIA 15 Chinook Distribution



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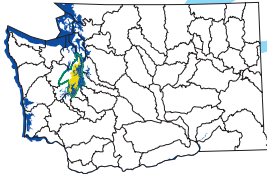
- Known Distribution
- Presumed Distribution
- Potential/Historic Distribution
- Streams
- Primary Roads
- Secondary Roads
- Light Duty Roads
- Other Roads
- Railroad
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WRIA 15 streams do not contain typical chinook habitat, as found in larger Puget Sound river basins. However, low numbers of adult chinook spawners are observed on a regular basis in many WRIA 15 streams. Current chinook spawner escapements are thought to be primarily supported by returns from chinook enhancement programs (hatchery programs, netpen releases, juvenile outplants). It is unknown whether, or to what extent, adult chinook returns may be the result of natural spawning. In the absence of continuing chinook enhancement programs, it is thought to be unlikely that any of the observed natural adult chinook returns would persist in East WRIA 15 streams (Chuck Baranski (WDFW), Paul Dorn (Suquamish Tribe)).

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Transportation Resolution Scale 1:24000
Map By: Ronald McFarlane, NWIFC, October 2000



East WRIA 15 Location

0 0.75 1.5 2.25 3 3.75 4.5 5.25 6 6.75 7.5 miles



Map 3, WRIA 15, KITSAP:
East WRIA 15 Chum Distribution



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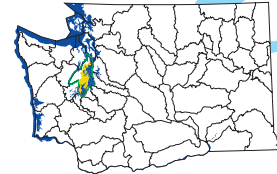
- Known Distribution
- Presumed Distribution
- Potential/Historic Distribution
- Streams
- Primary Roads
- Secondary Roads
- Light Duty Roads
- Other Roads
- Railroad
- WRIA 15 Boundary
- County Boundary
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West WRIA 15 to be included in the Hood Canal
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Identified chum presence in WRIA 15 is the result of professional observations and experience of TAG participants, and other recorded observations. The represented distribution is an under-representation of actual distribution, as there are streams or reaches where no spawner surveys have been conducted. There are also a large number of streams where chum presence has been limited by fish passage barriers. Although many barriers have and are being corrected, recolonization upstream of the previous barrier will occur gradually over time, and few spawner surveys have been conducted in the newly accessible areas.

Map Projection: WA Stateplane South Zone 5626 Datum NAD 1927
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East WRIA 15 Location



Map 4, WRIA 15, KITSAP:
East WRIA 15 Coho Distribution



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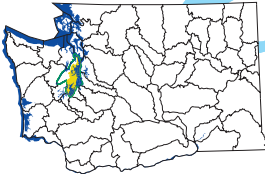
- Known Distribution
- Presumed Distribution
- Potential/Historic Distribution
- Streams
- Primary Roads
- Secondary Roads
- Light Duty Roads
- Other Roads
- Railroad
- WRIA 15 Boundary
- County Boundary
- East WRIA 15 Boundary
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- Kitsap County
- Pierce County
- King County
- Lakes/Major Waterways
- Swamps/Wetlands

West WRIA 15 to be included in the Hood Canal
Limiting Factors Analysis report.

Vashon/Maury Islands to be
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Limiting Factors Analysis
Report.

Identified coho presence in WRIA 15 is the result of professional observations and experience of TAG participants, and other recorded observations. The represented distribution is an under-representation of actual distribution, as there are streams or reaches where no spawner surveys have been conducted. There are also a large number of streams where coho presence has been limited by fish passage barriers. Although many barriers have and are being corrected, recolonization upstream of the previous barriers will occur gradually over time, and few spawner surveys have been conducted in the newly accessible areas.

Map Projection: WA Stateplane South Zone 5626 Datum NAD 1927
Data derived from DNR: Hydrology Resolution Scale 1:24000 Transportation Resolution Scale 1:24000
Map By: Ronald McFarlane, NWIFC, October 2000



East WRIA 15 Location



Map 5, WRIA 15, KITSAP:
East WRIA 15 Steelhead Distribution



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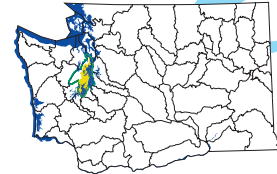
- Known Distribution
- Presumed Distribution
- Potential/Historic Distribution
- Streams
- Primary Roads
- Secondary Roads
- Light Duty Roads
- Other Roads
- Railroad
- WRIA 15 Boundary
- County Boundary
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West WRIA 15 to be included in the Hood Canal
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Limiting Factors Analysis
Report.

Identified steelhead presence in WRIA 15 is the result of limited professional observations and experience of TAG participants, and other recorded observations. The represented distribution is an under-representation of actual distribution, as much less spawner survey work has been done for steelhead than other salmon species. There are numerous streams or reaches where no steelhead spawner surveys have been conducted. There are also a large number of streams where steelhead presence has been limited by fish passage barriers. Although many barriers have and are being corrected, recolonization upstream of the previous barriers will occur gradually over time, and few spawner surveys have been conducted in the newly accessible areas.

Map Projection: WA Stateplane South Zone 5626 Datum NAD 1927
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Map By: Ronald McFarlane, NWIFC, October 2000



East WRIA 15 Location



Map 6, WRIA 15, KITSAP:
East WRIA 15 Cutthroat Distribution



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- Known Distribution
- Presumed Distribution
- Potential/Historic Distribution
- Streams
- Primary Roads
- Secondary Roads
- Light Duty Roads
- Other Roads
- Railroad
- WRIA 15 Boundary
- County Boundary
- East WRIA 15 Boundary
- Mason County
- Kitsap County
- Pierce County
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West WRIA 15 to be included in the Hood Canal
Limiting Factors Analysis report.

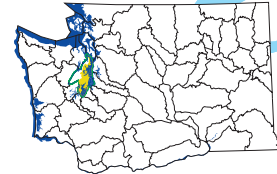
Vashon/Maury Islands to be
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Cutthroat presence is thought to be ubiquitous throughout East WRIA 15 streams, as stream gradients seldom exceed those known to be actively utilized by cutthroat. Even where natural fish passage barriers exist (cascades, waterfalls) that block anadromous salmonid access, populations of resident cutthroat typically are found upstream of the barrier. However, very limited work has been done to determine the extent of cutthroat presence, with most of the existing work focussed within the accessible anadromous zone. Cutthroat presence represented on this map reflects only those areas identified by limited professional observations and experience of TAG participants, and other recorded observations. In addition, because more survey work has been conducted for salmon than for cutthroat, cutthroat presence is presumed at least to the uppermost extent of identified presence of other salmonid species. Although this map can be used to identify those areas where cutthroat presence is known or presumed, cutthroat should also be considered as likely present in other reaches or creeks until surveys are conducted to document lack of presence.

Map Projection: WA Stateplane South Zone 5626 Datum NAD 1927

Data derived from DNR: Hydrology Resolution Scale 1:24000 Transportation Resolution Scale 1:24000

Map By: Ronald McFarlane, NWIFC, October 2000



East WRIA 15 Location



Map 7, WRIA 15, KITSAP:
East WRIA 15 Fish Passage Barriers

515

517

LEGEND

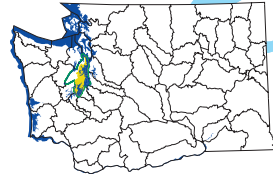
- Known Complete Barrier or Known Barrier with Unknown Passage Status
- Known Partial Barrier
- Previous Barrier
- Natural Barrier (Falls, Cascades)
- 8% Gradient Barrier
- 12% Gradient Barrier
- Streams
- Primary Roads
- Secondary Roads
- Light Duty Roads
- Other Roads
- Railroad
- WRIA 15 Boundary
- County Boundary
- East WRIA 15 Boundary
- Mason County
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West WRIA 15 to be included in the Hood Canal Limiting Factors Analysis report.

Vashon/Maury Islands to be included in the WRIA 9 Limiting Factors Analysis Report.

This map shows the approximate locations of known fish passage barriers in East WRIA 15, as interpreted from the Habitat Limiting Factors by Subbasin chapter of this report. Although there are a large number of known barriers, very few are natural barriers (cascades, falls, etc.). Most all of the fish passage barriers are human-induced. The purpose of this map is to show the extent to which salmonid presence and productivity is limited by fish passage barriers in many of the East WRIA 15 streams. However, this is not a complete representation of fish passage barriers, as there was insufficient description in the text to locate some of the known barriers, and there are numerous streams in East WRIA 15 where salmonid habitat conditions (including the presence of barriers) is unknown. It is also important to note that barriers upstream of natural barriers are also important to correct, as they block resident fish access. Also included are 8% and 12% stream gradient barriers identified by SSHAP. Stream gradient barriers of 8% are estimated to block upstream access to adult chum. 12% Stream gradient barriers block upstream access to other adult salmon or steelhead.

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East WRIA 15 Location

0 0.75 1.5 2.25 3 3.75 4.5 miles

585

590

